

REMARKS

Overview

Claims 12-28 are now pending in this application. Claims 12-28 are pending in the present application. Claims 12, 19, 20, 27 and 28 have been amended. No new matter has been added by way of amendment. Applicant respectfully requests reconsideration of the above-identified application in view of the remarks that follow.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 12-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Happ, further in view of Pace *et al.*, Young and Moore, Jr. for reasons of record in the Office Action of December 21, 2005. *See* Office Action, pp. 2-4.

Applicant traverses. Applicant notes that claims 12, 20, and 28 have been amended to more clearly indicate that the method of the invention requires that all components are applied in a single treatment application also have the added benefit of not requiring re-seeding. Claims 12 and 20 have also been amended to recite the much larger levels of metal salts that are applied in contrast to the much smaller amounts in the prior art references.

Applicant submits that the Examiner has not made out a *prima facie* case of obviousness. The only reference cited by the Examiner which deals with the same subject matter as Applicant's invention, the Happ reference, specifically teaches away from a combined single step approach as contemplated by Applicant's methods and composition. Applicant's invention combines high levels of metal salt treatment for eradication of the moss but also fertilizer for reincorporation of the turf without having to reseed. There is no suggestion or teaching that the steps of eradication and reincorporation can be accomplished in a single step. Quite the contrary, in fact, Happ states that, "The control of moss should be approached as a long-term project" Happ describes first eradication and then treatment for reincorporation of turf which may include fertilizer.

In addition, Applicant respectfully reiterates that amended claims 12 and 20 are allowable over the prior art of record. As a result, claims 13-19 and 21-27 are likewise allowable as depending from allowable base claims. Specifically, there is no teaching or suggestion in the cited prior art which would render either claims 12 or 20 obvious. For example, claim 28 now

has the additional limitation that moss is replaced with turfgrass without reseeding. Applicant asserts there is nothing in the cited references indicating that application of this compound alone will achieve moss control in this time span.

For instance, Happ's Case Study #1 states that "minor phytotoxic effects exhibited on the turf" (page 4, column 2). In said reference the application of the fertilizer was not concurrent with the application of the DeMoss, wetting agent and surfactant. Thus, the recovery of the turf was delayed until the fertilizer was applied. Overseeding is listed as another separate step, which occurred after application of the mixture. Further, Maneb fungicides "applied to moss during its early stages are phytotoxic to young/immature moss plants" (page 4, column 1). In contrast, in the present invention the application of the fertilizer is concurrent and thus the recovery of the turf is not at issue. This example also shows application of the metal salt, (DeMoss), in an amount of 1oz of De Moss that is used to repeatedly saturate small areas with a squirt bottle. None of this teaches anything about a combination single treatment protocol with much higher amounts of metal salt. Thus, Applicant asserts the present invention would not be obvious to one of skill in the art over the cited reference.

Case Study #2 uses a surfactant (Dawn dishwashing detergent) to desiccate moss in an amount of 2 to 8 ounces per 1000 square feet which was followed by an unspecified amount of iron sulfate. (page 4, column 2). In addition, the reference explicitly states that this method required an additional step - topdressing as well as nitrogen treatment (Step 3) (page 4, column 3). Thus, Applicant asserts the cited reference includes two additional steps which are not concurrent with the Dawn treatment and therefore one of skill in the art would not find the present invention obvious over Happ.

Applicant asserts that Case Study #3 has a number of separate, time distinct steps such as; 1) fertilizer applied, 2) removal of thatch, topdressing and aeration, 3) several weeks later in December and in February, iron sulfate (metal containing salt) applied, (this was done in the winter while the grass was dormant and thus the iron sulfate was not absorbed by the grass) 4) several weeks after step 3, fertilizer reapplied, and 5) addition of DeMoss (another metal containing salt at 1 to 1 ounces per 1000 square feet) proved to be effective. It is important to note that upon stage four the treatment has even been shown to not be effective by Happ's own statement (A and C, along with a few other additions was ineffective) (page 5, column 1). Thus,

Applicant asserts the Examiner is arguing that it was only (A and C), but it appears that the steps 1-4 which occurred earlier have been overlooked. In addition, grass seed was repeatedly added - "[b]entgrass seed was introduced regularly during the entire eradication process" (page 5, column 1). In contrast, in the present disclosure, there is no mention of reseeding, because "the turf gradually encroaches the moss colonies" (page 4, line 14-15).

Finally, Applicant asserts that the Happ reference provides some key information that needs to be noted. On page 2 of Happ, second column, Happ states that "fertilization alone may not adequately correct a moss problem. To a certain degree, it could exacerbate the undesirable condition." This should be mentioned to reject the validity of the Moore, Young, and Pace *et al.* references, which only talk about fertilizers and their ability to promote desired plant growth. These references do not address the killing of moss, nor do they make a distinction between vascular plants and the non-vascular moss. Further, it is important to point out that Happ also states "the **primary** requirements for completion of this (moss development) cycle are voids in the turf and spores that easily generate a new colony." As Happ states in the first paragraph of his article, "one weed that can easily invade and fill available voids is moss". Thus, if one's treatment either kills the turfgrass, moss or both, the treatment needs to include the colonization of the void with turfgrass, as opposed to recolonization by moss. If turfgrass does not reclaim the void within a timely manner, then moss may invade any void. This distinction is vital to understand in relation to the present invention.

In addition, the present invention is not dependent upon reseeding, because it facilitates turf growth by rhizomes and by stolons. Thus, the invention does not require re-seeding and the delay for germination of seeds, which may have different time requirements. Germination rates can vary from five to thirty days, depending on species type and conditions (include dormancy). Most critically, it is noted that "[s]eeding may take 10-15 weeks before turf can handle traffic; could take up to one year to handle normal use". (*See UC Guide – Irrigating New Lawns (Grown from Seed) and Comparison of Planting*). This is impractical for golf courses and less desirable for home owners. The reseeding is a key step of the Happ treatment(s) although it appears to date as not yet being acknowledged. Even if germination is successful, it is vital to understand that the young seedlings are still very vulnerable to stresses including being walked on. This is not the case from turfgrass that grows by either rhizomes or stolons as in the present invention.

The Examiner goes on to reject claims 12-28 in view of Pace *et al.*, Young and Moore, Jr.

Applicant traverses and maintains that the claimed method is likewise not rendered obvious by the combination of the remaining references wherein none of the remaining references deal with the control of moss. Each of the other three references instead deal with methods for fertilizing plants. As a result, nothing in these references would indicate that moss control can be achieved in the claimed manner.

The Pace *et al.* reference cites a foliar fertilizer composition of matter consisting of: urea, sulfur, potassium, and micronutrients. In contrast, the present invention does not use these components in the claimed composition.

Applicant asserts the Young reference cites a composition of matter consisting of: a urea solution, a buffer to adjust the pH and foliarly fertilizing plants. In Young the pH is between 6 and 7.6 which differs from the current invention. Further, the present invention does not use a foliar fertilizer like urea because it will burn out the grass.

The Moore patent claims a composition toward animal feed supplements. Further, the composition contains a number of animal body parts (feathers) and other items that combine a slow acting non-foliar fertilizer with a fast acting foliar fertilizer. IBDU is not mentioned in the claims and furthermore Moore teaches away from the use of fertilizers.

There likewise is no such suggestion in any of the other cited references. As noted previously, none of the other references are directed to control of moss. Rather they are focused on fertilizer compounds for use with plants. For example, Happ does not teach or suggest the use of the claimed composition in the treatment of moss. As a result, there is no teaching or suggestion to combine the references in such a way that would render the claimed invention obvious.

In light of the above, Applicant respectfully requests that the Examiner reconsider and withdraw the rejections to claims 12-28 under 35 U.S.C. § 103(a) as being unpatentable over Happ, further in view of Pace *et al.*, Young and Moore, Jr..

Conclusion

In conclusion, Applicant submits in light of the above amendments and remarks, the claims as amended are in a condition for allowance, and reconsideration is respectfully requested.

If it is felt that it would aid in prosecution, the Examiner is invited to contact the undersigned at the number indicated to discuss any outstanding issues.

This is a request under the provision of 37 CFR § 1.136(a) to extend the period for filing a response in the above-identified application for two months from August 10, 2006 to October 10, 2006. Applicant is a small entity; therefore, please charge Deposit Account number 26-0084 in the amount of \$225.00 for two months to cover the cost of the extension. Any deficiency or overpayment should be charged or credited to Deposit Account 26-0084.

Reconsideration and allowance is respectfully requested.

Respectfully submitted,



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